

DUANESBURG TOWN SOLAR COMMITTEE

Meeting Agenda
July 12 4:30 p.m.

1. Review Alexander Road site visit
2. Review Solar Law Project Requirements
 - A. Setbacks
 - B. Panel Height
 - C. Lot Coverage
 - D. Maximum Project Size
 - E. Wildlife
 - F. Visual Screening
 - G. Agriculture
 - H. Deforestation
 - I. Noise
 - J. Wetlands
 - K. Lighting
 - L. Slopes
 - M. Property Values
3. Public Comments

SOLAR LAW PROJECT REQUIREMENTS

	<u>Current Duanesburg</u>	<u>Revised Duanesburg</u>	<u>Most Strict</u>	<u>Alternative</u>
SETBACKS	100' to houses	100' around equipment	500' from property line (Florida)	450' from residences; 200' from property line (Ripley)
PANEL HEIGHT	<= 20'	<= 15'	<= 12' (Rush)	<= 25' (Rotterdam)
LOT COVERAGE	<= 60%	<= 60%	<= 20% (Glen, Copake)	
MAX PROJ SIZE	Not included	Not included	<= 10 acres (Copake, Cherry Valley)	50 acres (Rush)
WILDLIFE	Not included	Not included	No significant impact (Schoharie et. al.)	
VISUAL	25' vegetation buffer; may require evergreen plantings	100' buffer	Continuous hedge 14' high at planting; 2-yr warranty (Rush)	Berm, landscape screen or other (Schoharie et. al.)
AGRICULTURE	Not included	Not included	<= 20% of farmed parcel (Schoharie)	<= 5 acres prime agric. soils (Florida)
DEFORESTATION	20,000 sq. ft.	20,000 sq. ft.; definition issue	<= 9 acres (Florida)	<= 10% of woods on parcel (Copake)
NOISE	Not discernable from property line	Not discernable from property line	Duanesburg	<= 45 dBA Leq (8 hr) at houses (Caledonia)
WETLANDS	Not included	Not included	200' setback (Florida)	
LIGHTING	Not included	Not included	Limited, shielded, downlighted (Copake)	
SLOPE	Not included	Not included	<= 12% (Florida)	<= 15% average over 50' horizontal (Conway, Mass.)
PROPERTY VALUES	Not included	Not included	Not adversely affect neighboring properties (Guilderland)	Property value analysis (Cherry Valley)

SETBACKS

Current Duanesburg Language:

Any structures and equipment shall comply with all minimum setbacks for principal structures established in the Town of Duanesburg Zoning Ordinance except that any structures or equipment shall be located at least 100 feet from any lot containing a single or multi-family residence. Additional setbacks may be required by the Zoning Board or Planning Board to adequately buffer adjoining residential and public property.

2021 Revised Duanesburg Language:

Any structures and equipment shall not be placed in the one hundred feet perimeter buffer with the exception of the access road and the electrical transmission lines and poles connecting the facility to the grid, as well as the stormwater structures and fencing associated with the access road and the electrical transmission lines. Additional setbacks may be required by the Planning Board to adequately buffer adjoining properties and scenic roadways.

Strict Requirement (Town of Florida)

The Solar Energy System . . . shall be set back at a minimum of five hundred (500) feet from all of the parcel's boundary lines . . . Buildings and accessory structures other than Solar Energy Equipment, if any, shall adhere to the height and setback requirements of the underlying zoning district.

Alternative (Town of Ripley)

Solar energy systems [not exceeding 30 acres in size and 5 MW in nameplate capacity shall be set back 100 feet from front property lines and 50 feet from side and rear property lines. Systems exceeding 30 acres in size shall be set back 200 feet from all property lines.] In addition, systems exceeding 30 acres in size shall be set back a minimum of 450 feet from the exterior of any occupied residence located on a non-participating property. (*Actual language refers to a table of setback requirements.*)

PANEL HEIGHT

Current Duanesburg Language:

Ground-mounted arrays shall not exceed 20 feet in height when oriented at maximum tilt.

2021 Revised Duanesburg Language:

Ground-mounted arrays shall not exceed 15 feet in height when oriented at maximum tilt.

Alternatives:

Others range from 12 to 25 feet. Recent developer preference is 17 feet.

LOT COVERAGE

Current Duanesburg Language:

A major solar energy system shall not exceed 60 percent lot coverage. Lot coverage shall be defined as the area measured from the outer edge(s) of the arrays, inverters, batteries, storage cells and all other mechanical equipment used to create solar energy, exclusive of fencing and roadways.

2021 Revised Duanesburg Language:

No change.

Strict Requirement (Town of Copake):

A utility-scale solar energy system may occupy up to 20 percent of the area of the parcel on which it is located . . . This land area shall be deemed to include all land under or between any system components within the general perimeter of the system as a whole, but shall not include the area within the 25-foot buffer between the system components and the surrounding security fencing.

Alternatives:

Up to 70 percent (Princetown); some towns have no provision.

MAXIMUM PROJECT SIZE

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Copake and Cherry Valley)

. . . the area of land used for any such system shall not exceed 10 acres.

Alternative (Town of Rush)

There is a minimum of 20 acres and a maximum of 50 acres for a single [utility-scale] solar energy system.

WILDLIFE

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Schoharie, Sharon et. al.)

Development and operation of a solar energy system shall not have a significant adverse impact on fish, wildlife or plant species or their critical habitats, or other significant habitats identified by the Town or other federal or state regulatory agencies. Applicant site maps shall delineate sensitive environmental features along with other site information to identify and describe how the proposed utility-scale solar energy system shall avoid or mitigate adverse impacts to these resources. Lands that have the highest ecological values as evidenced by large, continuous areas of forest, undisturbed drainage areas, wetlands or NYS DEC-identified critical habitats or rare plant and animal populations shall be avoided.

VISUAL IMPACT

Current Duanesburg Language:

A minimum 25-foot perimeter buffer, consisting of natural and undisturbed vegetation, shall be provided around all mechanical equipment and solar panel arrays to provide screening to adjacent properties and to minimize glare on adjacent properties and roadways.

Evergreen tree plantings may be required to screen portions of the site from nearby residential property, public roads and from public sites known to include important views or vistas.

2021 Revised Duanesburg Language:

A minimum 100 feet perimeter buffer, consisting of natural and undisturbed vegetation, shall be provided around all mechanical equipment and solar panel arrays to provide screening to adjacent properties and to minimize glare on adjacent properties and roadways. Where the natural and undisturbed vegetation does not screen the views from the mechanical equipment and solar panel arrays, the Planning Board may require the Applicant to enhance the perimeter buffer to improve its ability to screen the views.

Evergreen tree plantings or other visual screening may be required by the Planning Board to screen all or portions of the site from nearby residential property, public roads and from public sites known to include important views or vistas.

Strict Requirement (Rush)

A landscape buffer shall be provided around the [utility-scale] Energy System to provide screening from adjacent properties. The [utility-scale] Solar Energy System shall be completely screened from any adjacent property. To accomplish this screening, existing vegetation shall be utilized to the fullest extent practicable and/or at least two rows of native evergreen trees or other screening acceptable to the Planning Board which is capable of forming a continuous hedge at least 14 feet in height at planting shall be required and maintained. A two-year warranty shall be provided for any screening installed as part of the [utility-scale] Energy System. The minimum screening requirement may be waived if the Planning Board determines that some other suitable vegetation or feature already exists to achieve complete screening.

Alternative (Schoharie, Sharon et. al.)

The solar facility, including any proposed off-site infrastructure, shall be located and screened in such a way as to avoid or minimize visual impacts as viewed from:

- (1) Publicly dedicated roads and highways, including . . .
- (2) Existing residential dwellings located on contiguous parcels.

A berm, landscape screen or other opaque enclosure, or any combination thereof acceptable to the Town capable of fully screening the site, shall be provided.

AGRICULTURE

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Schoharie)

In accordance with the Comprehensive Plan, the Town of Schoharie does not support conversion of productive farmland to support solar energy systems. When proposed on an active farm located within an Agricultural District designated under Section 303 of the NYS Agricultural and Markets Law, a [utility-scale] solar energy system may occupy up to 20 percent of any farmed parcel but in no case shall it exceed 15 acres. Solar energy systems shall be located on a parcel in such a manner as to avoid, to the maximum extent feasible, soils classified as prime farmland by the USDA, NYS OR NRCS.

Alternative (Florida)

Installation of Large Scale Solar Energy Systems on land areas which contain prime agricultural soils shall be avoided to the maximum extent possible. In no case shall the Solar Energy System cover more than five acres of prime agricultural soils.

DEFORESTATION

Current Duanesburg Language:

Existing on-site vegetation shall be preserved to the maximum extent practicable. Clear cutting of all trees in a single contiguous area exceeding 20,000 square feet shall be prohibited.

Site disturbance, including but not limited to, grading, soil removal, excavation, soil compaction and tree removal in connection with installation of solar energy facilities, including ground-mounted systems, shall be minimized to the extent practicable. Forested sites shall not be deforested to construct solar energy facilities.

2021 Revised Duanesburg Language:

Existing on-site vegetation shall be preserved to the maximum extent practicable. Clear cutting of all trees in a single contiguous area exceeding 20,000 square feet shall be prohibited. This clearing restriction shall not apply to trees cleared for the access road.

Site disturbance, including but not limited to, grading, soil removal, excavation, soil compaction and tree removal in connection with installation of solar energy facilities, including ground-mounted systems, shall be minimized to the extent practicable. Forested sites shall not be deforested to construct solar energy facilities.

Adds following definition of clear-cutting: Any cutting of trees over six inches in diameter at breast height where the average residual basal area of trees over six inches in diameter at breast height remaining after such cutting is less than 30 square feet per acre.

Strict Requirement (Florida)

Significant clearing of mature tree growth and hedgerows should be avoided to the maximum extent possible. Installation of Large-Scale Solar Energy Systems on fields or land areas which do not require significant clear cutting is preferred. In no case shall the Solar Energy System require clear cutting of more than nine acres. Once the land is cleared and the Solar Energy System is installed, the land disturbed must be reseeded or replanted with a combination of native plant species and native grass. Ground cover of gravel or other non-vegetative cover should only be used for access and internal roads to the maximum extent practicable.

Alternative (Copake)

Previously cleared or disturbed areas are preferred locations for solar panel arrays. The clearing of additional lands to accommodate a proposed utility-scale solar energy system may be permitted, provided the percentage of newly cleared land on any parcel does not exceed 10 percent of the existing woodlands on that parcel.

NOISE

Current Duanesburg Language:

Substations and inverters shall be set back a minimum distance to achieve no discernible difference from existing noise levels at the property line.

2021 Revised Duanesburg Language:

Same as above.

Alternatives

Duanesburg Zoning Law (14.6.3.1)

In the Town, uses are not permitted which exceed the following standards measured at individual property lines. The Planning Board under its powers of site plan review and approval shall decide whether uses meet the standards. Uses shall meet State environmental standards and shall not:

1. Emit noise in excess of 70 decibels, dBA scale, of a standard sound level meter.

Caledonia

Noise levels from the solar energy system will comply with the noise limits for solar energy facilities contained in the New York Office of Renewable Energy Siting regulations at 19 NYCRR 900-6.5(b) by implementing the design required by 19 NYCRR 900-2.8 except that the standards applicable to existing non-participating residences shall also be met for existing participating residences.

94-c regulations provide:

- (i) A maximum noise limit of 45 dBA Leq (8-hour), at the outside of any existing non-participating residence, and 55 dBA Leq (8-hour) at the outside of any existing participating residence;*
- (ii) A maximum noise limit of 40 dBA Leq (1-hour) at the outside of any existing non-participating residence from the collector substation equipment;*
- (iii) Prominent tones are as defined by using the constant level differences listed under ANSI/ASA S12.9-2005/Part 4 Annex C (sounds with tonal content) (see Section 900-15.1(a)(1)(iii) of this Part), at the outside of any existing non-participating residence. Should a prominent tone occur, the broadband overall (dBA) noise level at the evaluated non-participating position shall be increased by 5 dBA for evaluation of compliance with subparagraphs (i) and (ii) of this paragraph; and*
- (iv) A maximum noise limit of 55 dBA Leq (8-hour), short-term equivalent continuous average sound level from the facility across any portion of a non-participating property except for portions delineated as NYS-regulated wetlands pursuant to Section 900-1.3(e) of this Part and utility ROW to be demonstrated with modeled sound contours drawings and discrete sound levels at worst-case locations. No penalties for prominent tones will be added in this assessment.*

Ripley

Once in operation, sound pressure level at the exterior of any residence or non-participating property line, expressed in terms of dBA Leq-8hr, shall not exceed existing background ambient noise, expressed in dBA Leq-8hr as measured by a qualified acoustician, by more than 6dB.

WETLANDS

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Florida)

The Solar Energy System . . . shall be setback at a minimum of . . . 200 feet from all wetlands, ponds and streams.

Alternatives:

Schoharie, Sharon et. al.

Lands that have the highest ecological values as evidenced by large, continuous areas of forest, undisturbed drainage areas, wetlands or NYS DEC-identified critical habitats or rare plant and animal populations shall be avoided

(NYS 94-c Regulations Section 900-2.15)

Applicant shall produce a map or series of maps showing jurisdictional boundaries of all federal, state and locally regulated wetlands and adjacent areas present on the facility site and within 100 feet of areas to be disturbed by construction, including the interconnections . . .

If the Office has determined . . . that there are jurisdictional wetlands at the site, [applicant shall provide] a demonstration of avoidance of impacts to such wetlands and their 100-foot adjacent areas by siting all components more than 100 feet from any delineated NYS wetlands.

LIGHTING

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Copake)

Artificial lighting of utility-scale solar energy systems shall be limited to lighting required for safety and operational purposes only and shall be down-lighted and shielded from all neighboring properties and public roads.

SLOPE

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Florida)

No part of a Large Scale Solar Energy System shall be located above the elevation of 700 feet, along ridgelines, on hilltops, or on slopes greater than 12 percent.

Alternative (Conway, Mass.)

No commercial solar photovoltaic installation may be permitted as follows:

Any solar photovoltaic installation on slopes of 15 percent or greater as averaged over 50 horizontal feet. The Planning Board may consider waiving this up to 18 percent based on site-specific parameters. No cutting or filling may be done to reduce natural slopes.

PROPERTY VALUES

Current Duanesburg Language:

Not included.

2021 Revised Duanesburg Language:

Not included.

Strict Requirement (Guilderland)

The Zoning Board shall confirm compliance with [requirements for major solar energy systems], and shall make the following affirmative findings:

2. The major solar energy system will not adversely materially affect the value, use or enjoyment of neighboring properties;

Alternatives:

Cherry Valley

Applications shall include a property value analysis prepared by a licensed appraiser in accordance with industry standards, regarding the potential impact on values of properties neighboring solar energy generating sites. Such analysis should include actual data concerning the impacts of previously constructed facilities in the State of New York on property values.

Alliance for Wise Energy Decisions (model law)

The Solar Energy Facility applicant shall assure the Town that there will be no loss in real property value for any property with 1,000 feet of the Solar Energy Facility. To legally support this claim, the Applicant shall consent in writing to a Real Property Value Protection Agreement as a condition of approval for the Solar Electric Facility. This agreement shall provide assurance to non-participating real property owners near the Solar Electric Facility that they have some protection from Solar Electric Facility-related real property value losses.

The applicant guarantees that there will be no loss in real property value within 1,000 feet of the Solar Electric Facility, due to the Solar Electric Facility. Any real property owner(s) included in that area who believe that their property may have been devalued due to the Solar Electric Facility, may elect to exercise the following option:

All appraiser costs are paid by the applicant, from the escrow account. Applicant and the property owner shall each select a licensed appraiser. Each appraiser shall provide a detailed written explanation of the reduction, if any, in value to the real property ("Diminution Value"), caused by the proximity to the Solar Electric Facility. This shall be determined by calculating the difference between the current Fair Market Value of the real property and what the Fair Market Value would have been at the time of exercising this option, assuming no Solar Electric Facility was proposed or constructed.

Suggested language goes on to describe at length how solar operator will compensate neighboring property owners.